

In July and August we received some Spiders from Messrs. Raleigh and C. F. R. Blandy. There are examples of two species of Tarantulas (*Lycosa nigra* and *Lycosa porto-santana*) and specimens of the Zebra Spider (*Argyope fasciata*). These are all from Madeira. One of the Zebra Spiders made a web and laid some eggs; these produced young ones, but they all died.

The following papers were read:—

1. On a Collection of small Mammals made by Mr. F. J. Jackson in Eastern Africa. By OLDFIELD THOMAS.

[Received February 2, 1891.]

(Plate XV.)

By the kindness of the Misses Jackson I have been entrusted with the examination of the small Mammals collected by their brother, Mr. F. J. Jackson, during his recent successful expedition to the interior of the British East-African Company's Territories and up Mount Elgon. Mr. Jackson has already distinguished himself as a collector, and this last expedition, so far beyond the region explored by naturalists, has resulted in the discovery of a very large number of novelties. Mr. Jackson is much to be congratulated on his striking success in this direction¹.

The localities at which the Mammals were collected were as follows:—

Mount Elgon, a volcanic peak, about 14,000 ft. in altitude, N.E. of the Victoria Nyanza, about 1° N., 34° 35' E.² Never ascended previously by any European.

Turquel, in the Sük country, between 1° and 2° N. and 34° and 35° E.; inland British East Africa.

Mianzini, just east of Lake Naivasha, about 0° 55' S. and 36° 25' E.; at an altitude of nearly 9000 feet.

The geographical affinities of the collection are extraordinarily mixed, and even dividing the localities, for Mount Elgon is nearly 200 miles distant from Mianzini, the same peculiarity is observable. Thus of the three species marked as from Mount Elgon³, one is new, with distinct South-African and Abyssinian, *not* West-African, affinities; one is typically West-African (as are many of the birds),

¹ See papers on the Birds by Messrs. Sharpe and Grant, 'Ibis,' 1891.

² These positions are taken from the map in Mr. Joseph Thomson's 'Through Masai-land,' 1885.

³ Unfortunately some of the specimens, although numbered by Mr. Jackson, have not the localities marked on them, so that until his notes arrive the exact localities cannot be recorded; and some of these specimens may also be from Mount Elgon.

and the other occurs over the whole of Africa. The same sort of thing is the case with the other specimens.

In this part of the new British Territories, therefore, we seem to possess a region of exceptional zoological interest, as being the meeting-place of the North-eastern, Western, and Southern faunas; and it is much to be hoped that under the auspices of the Imperial British East-African Company other naturalists will follow Mr. Jackson's spirited example, and that we shall thereby gain a thorough knowledge of the manner in which the different zoological districts pass into one another within our "sphere of influence."

The collection consists of 38 specimens, referable to 15 species, of which three, two Rodents and a Bat, are new to science¹. The forms mostly belong to groups so obscure zoologically, and so troublesome and difficult of collection under the trying circumstances inseparable from such an expedition, that Mr. Jackson deserves the sincere thanks of zoologists for this material contribution to our knowledge of the smaller Mammals of Africa.

1. *HERPESTES GRACILIS*, Rüpp.

a. One specimen.

2. *PETRODROMUS TETRADACTYLUS*, Ptrs.

a. ♂. One specimen.

3. *CROCIDURA HEDENBORGI*, Sund.

a. Mianzini. 8/89.

4. *EPOMOPHORUS MINOR*, Dobs.

a-c. Turquel, Sük. 1/90.

This rare species has been obtained at Zanzibar and Bagamoyo, and also, by Dr. Emin Pasha, at Kiriamo, just south of the Albert Nyanza.

5. *NYCTINOMUS LOBATUS*, sp. n.

a. ♂. Turquel, Sük. 1/90. *Type*.

Allied to *N. cestoni*, Savi², or rather *N. tæniotis*, Raf.³, as it ought to be called, and to *N. africanus*, Dobs.; but distinguished from both by its larger ears, larger tragus, higher antitragus (fig. p. 183), and coloration, while in other respects it agrees sometimes with one and sometimes with the other, and forms in some respects a connecting-link between them.

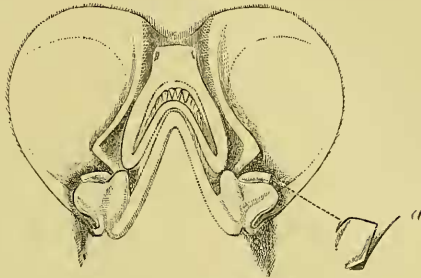
Ears very large, rounded, laid forward they extend quite a quarter of an inch beyond the tip of the muzzle; their inner bases united on the muzzle; their substance comparatively thin and transparent; keel of the conch scarcely thickened below; antitragus very high

¹ Preliminary descriptions of the new species were published in Ann. & Mag. N. H. (6) vii. p. 303 (1891).

² N. Giorn. Lett. p. 230 (1825).

³ Précis découv. somiol. p. 12 (1814)

posteriorly, the notch behind it more than 5 millim. deep, as compared to about 3 millim. in the two allied species. Tragus large and broad, quadrangular, its tip sharply angular, and its outer upper border long and straight. Lips apparently not deeply wrinkled. Gular sac apparently present. Pads at base of thumb distinct. Lower incisors 4. Colour everywhere above, and on the chin, shoulders, and sides of thorax below dark brown; chest, belly, base of tail, and thighs to below knees pure white.



Nyctinomus lobatus.

Under surface of head, showing ears and antitragus. *a*, tragus. Nat. size.

Dimensions:—Head and body 77 millim., tail 56; tail free from membrane 30; ears, length from base of post-antitragal notch to tip 30; forearm 63 (=2.47 in.).

This fine new Bat is distinguished at once from all the other species of the genus, except *N. miarensis*, Grand., and the two above-mentioned, by its much greater size, none of them having a forearm exceeding two inches in length. *N. miarensis* is at once separated by its structural characters and is not really allied to *N. lobatus*. Of the two species to which it is allied, *N. africanus* is a native of the Transvaal, and *N. teniotis* of Abyssinia¹, extending northwards over a great part of the Palæarctic region: the new form is therefore intermediate between them in habitat as in many of its characters; but there can be no question as to the specific distinctness of all three.

6. SCIURUS RUFBRACHIATUS, Waterh.

a. Mount Elgon, in thick forest. 6000 ft. 25/2/90.

b. Mount Elgon, in thick forest. 22/1/90.

c. Mount Elgon.

d. Savi, Mount Elgon. 14/2/90.

This is a typically West-African species, and its occurrence on Mount Elgon still further extends its known range to the eastward

¹ The Abyssinian *N. midas*, Sund., and *N. ventralis*, Heugl., are unquestionably, as Mr. Dobson has shown, synonymous with *N. teniotis*.

beyond that already recorded in the two papers on Emin's Mammalia¹.

7. *SCIURUS ANNULATUS*, Desm.

a, b. Two specimens.

8. *SCIURUS CEPAPI*, Smith.

a, b. ♂. Kikuyu.

c. ♀. Kikuyu.

d. ♀.

9. *XERUS ERYTHROPUS*, Geoffr.

a. One specimen.

10. *OTOMYS IRRORATUS*, Bts.

a-e. Mianzini. 8/89.

These five skins exemplify very well the considerable variation in colour to which this species is subject, two of them being dark umber-brown, two dark sandy fawn, and the fifth grey, with a wash of brown on the head and centre of back. These differences, however, may be due merely to age, as, judging by the skulls, the last described specimen is the youngest, and the first two the next in age of the set, the fawn-coloured specimens being therefore the oldest of all.

All the five have 7 laminae in \overline{m}^3 and 4 in \overline{m}^1 , and therefore confirm on the whole the conclusions come to by Prof. Barboza du Bocage² as to the identity of his *O. anchietæ*, which has 7-5 laminae in the two teeth, with *O. irroratus* of S. Africa, which ordinarily has only 6-4. There may be perhaps a tendency to an increase northwards in the number of laminae in the last upper molar, as S.-African specimens seem very rarely to attain the number found in all of the Mianzini ones, which are the most northern recorded.

11. *OTOMYS JACKSONI*, sp. n. (Plate XV.)

a. Crater of Mt. Elgon, at 13,200 ft. 17/2/90. *Type*³.

b, c (without skulls). Ditto.

Allied to *O. irroratus*, but readily distinguishable by the lower incisors having two deep grooves on their anterior faces instead of only one.

Size rather smaller than in *O. irroratus*; general form, as usual, very vole-like. Fur excessively long and soft, the general mass of the hairs on the back attaining a length of 18-20 millim.

¹ P. Z. S. 1888, p. 8, and 1890, p. 447. In the second of these two papers a misprint occurs (p. 446), which I may take this opportunity of correcting. The type specimen of *Anomalurus orientalis*, Peters, is there said to be in the *British Museum*, but it should, of course, have been *Berlin Museum*.

² J. Sci. Lisb. (2) iii. p. 206 (1889).

³ The single skull, on which of course the species is really founded, was not definitely allocated to any one of the three skins; but in its size it appears to fit *a* the best, and as it certainly belongs to one or other of the three, the point is not of very great consequence.

Colour a coarsely grizzled brownish yellow mixed with black, the grizzling appearing all the coarser from the great length of the fur. Longer hairs on centre of back black-tipped, those on sides yellow-tipped. Bases of hairs all over, above and below, pale slaty grey for seven-eighths of their length; tips of belly-hairs dirty yellow. Ears, as usual, large and rounded. Tail short, bicolor, black along the top, shining greyish white along the sides and under surface.

Skull very much as in *O. irroratus*, but the bones rather lighter and more delicate.

Teeth. Upper incisors narrower and flatter in front than in *O. irroratus*; their anterior faces each with one deep groove in the position of that of *O. irroratus*, a faint internal one also as in that species, and between the two a third very faint and indistinct one, just flattening the part of the tooth that is most convex in the allied species. Lower incisors each with two deep and distinct grooves, the outer one clearly corresponding to the single groove in *O. irroratus*, the inner one running along the part that is so prominently convex in that species. Lamina formula of molars $\frac{3-2-1}{4-2-2}$, as in all the present set of *O. irroratus*.

Dimensions:—Head and body approximately 120 millim.; tail (of *b*, that of *a* being broken) 47; hind foot 25·5.

Skull. Basal length 31·4, greatest breadth 18·1; nasals, length 16, breadth 6·2; interorbital breadth 4; interparietal, length 4·9, breadth 9·5; anterior palatine foramen 6·5; diastema 7·7; length of upper molar series (crowns only) 7·8; combined breadth of upper incisors 3·6; lower jaw, condyle to incisor tip 23·8.

As already shown, the more numerous grooved incisors separate this new species at once from *O. irroratus*, while *O. brantsii*, Smith, and *O. unisulcatus*, F. Cuv., the only other species recognized, have incisors even less grooved than in the form to which I have compared it. It represents therefore a most interesting step towards *Oreomys typus*, Heugl.¹, a native of the high mountains of Abyssinia, which has no less than three deep grooves on each of its incisors, and a lamina formula of $\frac{3-2-8^2}{4-2-2}$; in fact its discovery may necessitate the union of "*Oreomys*" with *Otomys*, the number of incisor grooves being in this group evidently not a generic, but only a specific character. Without having examined a specimen of Heuglin's animal, however, and only from his description, I do not care for the present definitely to abolish the genus.

This striking new species is one of the many important zoological discoveries made by Mr. Jackson during his ascent of Mount Elgon in January 1890, and it is with much pleasure that I connect with it the name of so distinguished an explorer and naturalist as he has proved himself to be.

¹ Reise N.O.-Afr. ii. p. 76 (1877).

² Heuglin, in his description, stated that there were 4 upper molars present in *Oreomys*, with a lamina formula of 3-2-3-5; but he had evidently mistaken the long posterior tooth for two, and I have therefore corrected his formula into that above given.

12. *MUS DOLICHURUS*, Smuts.

a-d. ♀ and 3 young ones. Mount Elgon. 2/90.

“Found in a Barbet’s nest in a hole in a tree in thick forest.”

Mus arborarius, Peters¹, originally described from the Zambezi, and recorded by Pagenstecher from Mguruman, Masai-land, is no doubt synonymous with the earlier described *M. dolichurus*². So also, in all probability, is the same author’s *M. rutilans*³ from the Cameroons, while a specimen from Fayum, Egypt, in the Berlin Museum, which is marked “*Mus argillosus*, Licht.”⁴, appears also to be the present form. The species therefore ranges over the whole of Africa, from Egypt to the Cape, although it is evidently very rare, as so few specimens have been brought to Europe.

The three young ones, taken from the nest by Mr. Jackson, are clothed with straight crisp hairs above and are nearly naked below; their upper surfaces are of a dark mouse-grey colour with prominent yellowish patches behind the ears; their chins, chests, and bellies are bordered with bright cream-colour. As in other long-tailed species, the tails of the young are comparatively short, barely equalling the length of the body without the head.

13. *MUS (ISOMYS) ABYSSINICUS*, Rüpp.

a, b. Turquel, Sük. 1/90.

14. *MUS (ISOMYS) PUMILIO*, Sparrm.

a, b. Mianzini. 8/89.

15. *RHIZOMYS ANNECTENS*, sp. n.

a. Ad. ♂. *Type of species.*

(?) *b, c.* Yg. Mianzini. 8/89.

Like *R. splendens*, Rüpp., but considerably larger, although not attaining the size of *R. macrocephalus*, Rüpp.

Dimensions of *a*:—Head and body (circa) 240 millim.; tail 45; hind foot, without claws 29, with claws 33.

Skull dimensions:—Basion to gnathion 51; basion to front surface of one of the incisors 52; zygomatic breadth 39·4; nasals, length 21, greatest breadth 7·6; breadth between outer corners of infra-orbital foramina 15·3; diastema 21·5; combined breadth of upper incisors 8·2; length of upper molar series (crowns only) 10·0. Lower jaw, length (bone only) 36; back of condyles to incisor tips 43·5.

The basal length of the skull of *R. macrocephalus* appears, from Rüppell’s figures, to be about 63 millim., while that of the largest of six specimens of *R. splendens* in the British Museum is only 41.

¹ Säugeth. Mossamb. p. 152 (1852).

² En. Mamm. Cap. p. 38 (1832).

³ MB. Ak. Berl. 1876, p. 478. The type of this species is said to have only 0—2=4 mammae; but this is probably an abnormality, as there is a specimen in the Museum from the Niger with the usual number, 1—2=6.

⁴ No description published, so far as I can ascertain. The specimen was collected by Hemprich and Ehrenberg.

